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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,219	10/11/2001	Ferdinand S. Signey	TI-27954	7795

23494 7590 12/30/2004

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EXAMINER

ALIE, GHASSEM

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/975,219	SIGNEY ET AL.	
	Examiner	Art Unit	
	Ghassem Alie	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This is a response to a RCE filed on 03/22/04. The Advisory Action filed on 04/14/04 has been vacated, since it is not a correct response to the RCE filed on 03/22/04.

In addition, it should be noted that the restriction requirement mailed on 06/21/03 stands and it is maintained. Therefore, claims 14-20 are withdrawn from consideration, as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-9, 12, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Drussel et al. Drussel et al. teach, inter alia, cutting a plurality (Fig. 5, claim 11) of integrated circuit packages (abstract; col. 4, lines 27-42) that are ball grid array packages (col. 7, lines 16-17) with a water jet (col. 8, line 54) into a predetermined or desired shape (Fig. 1, 22), such that an interior portion is accessible for testing (col. 7 line 66 to col. 8 line 13; Figs. 4A-4C, edges 56, 57).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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Drussel et al. in view of Hashish et al. The device of Drussel et al. discloses the invention as claimed except a water jet having abrasive particles used for cutting. However, Hashish et al. teach a water jet having abrasive particles used for cutting (abstract; col. 1, lines 24-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with abrasive particles as taught by Hashish et al. for improved cutting.

6. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drussel et al. in view of Romanini. The device of Drussel et al. discloses the invention as claimed except pressurizing the cutting water jet to a pressure between approximately 500 psi and approximately 2500 psi. However, Romanini teaches pressurizing a cutting water jet to a pressure between approximately 500 psi and approximately 2500 psi (col. 1, lines 18 to 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with a pressure between approximately 500 psi and approximately 2500 psi as taught by Romanini for optimum cutting.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the water jet of Drussel et al. with a pressure between approximately 500 psi and approximately 2500 psi, since the general condition of a cutting water jet, which by nature is pressurized, is disclosed by Drussel et al. and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges, in this case pressures, involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Amendment

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7. Applicant's arguments filed on 03/22/04 have been fully considered but they are not persuasive.

Applicant's argument regarding that Drussel al. (6,047,470), hereinafter Drussel, does not teach a method for cutting integrated circuit packages is not persuasive. Drussel teaches a circuit board substrate assembly 20, which defines an integrated circuit package. The integrated circuit package 20 has circuit board portions 24 which are disposed on a substrate 21. A water jet cuts an opening 24 in the substrate 21. The water jet cuts the substrate of the integrated circuit package 20 and consequently the integrated circuit package itself. Therefore, Drussel teaches a method for cutting integrated circuit packages. See col. 8, lines 44-60 in Drussel. It should be noted that the circuit board substrate assembly 20 is considered to be an integrated circuit package, since it has individual circuit boards. In addition, the method of cutting a circuit board substrate in Drussel is not only limited to a specific circuit board, but this method can be applied to any other boards with various circuit components. See page 4, lines 1-59 in Drussel.

In addition, in response to applicant's argument that that Drussel cutting device is not used to cut integrated circuit packages, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information

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about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (too-free).

GA/ga

December 16, 2004



Allan N. Shoap
Supervisory Patent Examiner
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